

Create a Text-file Based System For Storing and Updating Teacher Records

Introduction:

Rainbow School is creating a system to store, retrieve, and update teacher data. To accomplish this, a program will be developed using C# to manage teacher information using text files. The program will provide a user-friendly interface for school administrators to add new teachers, display existing teacher data, and update teacher details.

Program Design:

Teacher Class:

A Teacher class will be defined to store information about each teacher.

The class will have properties for ID, Name, and ClassAndSection.

A constructor will be provided to initialize the teacher's data.

The ToString method will be overridden to display teacher information in a user-readable format.

Main Program Logic:

A console application will be developed using a Visual Studio Windows Console Project.

The program will start by loading existing teacher data from the "teachers.txt" file into a list of Teacher objects.

The main loop will display a menu with four options: Add Teacher, Display All Teachers, Update Teacher, and Exit.

The user will choose an option by entering the corresponding number (1, 2, 3, or 4).

Add Teacher:

When the user chooses the "Add Teacher" option, the program will prompt the user to enter the teacher's ID, Name, and Class and Section.

A new Teacher object will be created with the entered information and added to the list of teachers.

The program will display a success message after adding the teacher.

Display All Teachers:

When the user chooses the "Display All Teachers" option, the program will list all the teachers' information stored in the list.

If no teachers are present, a message will indicate that there are no teachers to display.

Update Teacher:

When the user chooses the "Update Teacher" option, the program will prompt the user to enter the ID of the teacher they want to update.

The program will find the teacher with the entered ID in the list of teachers.

If the teacher is found, the program will prompt the user to enter the new Name and Class and Section for the teacher.

The teacher's data will be updated accordingly, and a success message will be displayed.

Exit:

When the user chooses the "Exit" option, the program will save the updated teacher data back to the "teachers.txt" file and terminate.

File Handling:

The program will use a text file named "teachers.txt" to store teacher data in a simple comma-separated format (ID, Name, Class and Section) for easy retrieval and updating.

GitHub Repository:

[https://github.com/rastogi102/CourseEnd_Project_TeacherDataManagement.git]

Conclusion:

The Teacher Data Management program will provide an efficient way for Rainbow School administrators to manage teacher data using text files. The user-friendly console interface will allow them to add new teachers, view existing records, and update teacher information as needed. By using file handling techniques, the program ensures that the teacher data is stored and persisted across sessions, making it a practical tool for school administration.